



# 2005 Drinking Water Quality Report

## **RRA - LOCKETT WATER SYSTEM**

### **Red River Authority of Texas**

P. O. Box 240

Wichita Falls, Texas 76307-0240

(940) 723-8697

## **OUR DRINKING WATER IS REGULATED**

by the Texas Commission on Environmental Quality (TCEQ) and they have determined that certain water quality issues exist which prevent our water from meeting all of the requirements as stated in the Federal Drinking Water Standards. Each issue is listed in this report as a violation and we are working closely with the TCEQ to achieve solutions.

### **Special Notice for the ELDERLY, INFANTS, CANCER PATIENTS, people with HIV/AIDS or other immune problems:**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800) 426-4791.

## **En Espanol**

Este reporte incluye informacion importante sobre el agua para tomar. Si tiene preguntas o' discusiones sobre este reporte en espanol, favor de llamar al tel. (940) 723-8697 par hablar con una persona bilingue en espanol.

## **WHERE DO WE GET OUR DRINKING WATER?**

The **RRA-Lockett Water System** utilizes ground water from the Permian formation and purchased ground water from the City of Vernon. The ground water is produced through Authority owned wells located in Wilbarger County, Texas. Additional ground water is also purchased from the City of Vernon, primarily during peak demand periods. The Texas Commission on Environmental Quality (TCEQ) has completed and provided the Authority a Source Water Susceptibility Assessment for the drinking water source(s) that we own as well as for the system(s) from which we purchase water. This report describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. For more information on source water assessments and protection efforts for our system contact Henry C. Wied at (940) 723-8697.

## **ALL DRINKING WATER MAY CONTAIN CONTAMINANTS**

When drinking water meets federal standards there may not be any health based benefits to purchasing bottled water or point of use devices. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.

## **PUBLIC PARTICIPATION OPPORTUNITIES**

The Authority's Board of Directors regularly meets on the third Wednesday of January, April, July, and September of each year. Specific times and locations of these and/or any special meetings can be obtained by contacting the Authority at (940) 723-8697.

For more information about the water quality of your water system, public participation programs, water conservation programs, and/or general operations policies, call (940) 723-8697 or e-mail the Authority at: [info@rra.dst.tx.us](mailto:info@rra.dst.tx.us). For service requests or reporting leaks after normal business hours, contact your District Manager, Mr. Terry Dyer at (940) 552-2656 or Mr. Mike Carlson at (940) 474-3263.

## **SYSTEM INFORMATION**

The Red River Authority of Texas owns and operates 29 registered public water supply systems through its Utility Division. The Utility Division maintains over 2,150 miles of transmission lines, two surface water treatment plants, 65 pumping facilities and serves approximately 10,000 customers residing in a 15 county area of the Red River Basin. The Utility Division is subdivided into geographical districts for proper management, maintenance, and financial accounting of individual systems.

The **RRA-Lockett Water System** is one of the water systems operated by the Utility Division's District 13. In 2005, the system served 241 active connections with an average water use of 232 gallons per day per connection. The primary use of the water was rural domestic. No major capital improvement items were scheduled for 2005.

The Authority maintains a Water Conservation and Drought Contingency Plan for the Utility Division. Information on the plan is available on the Authority's web page at [www.rra.dst.tx.us](http://www.rra.dst.tx.us) or can be obtained by calling (940) 723-8697.

## **DEFINITIONS:**

### **Maximum Contaminant Level (MCL) –**

The highest level of a contaminant in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

### **Maximum Contaminant Level Goal (MCLG) –**

The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

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### **Maximum Residual Disinfectant Level (MRDL)–**

The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

### **Treatment Technique (TT) –**

A required process intended to reduce the level of a contaminant in drinking water.

### **Action Level (AL) –**

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**NTU** – Nephelometric Turbidity Units

**MFL** – million fibers per liter

**pCi/l** – picocuries per liter (a measure of radioactivity)

**ppm** – parts per million, or milligrams per liter (mg/l)

**ppb** – parts per billion, or micrograms per liter (ug/l)

**ppt** – parts per trillion, or nanograms per liter

**ppq** – parts per quadrillion, or picograms per liter

## **SECONDARY CONSTITUENTS**

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concerns. Therefore, secondaries are not required to be reported in this document, but they may greatly affect the appearance and taste of your water.

## **ABOUT THE FOLLOWING TABLES**

U.S. EPA requires water systems to test up to 97 constituents. The attached table contains all of the federally regulated or monitored constituents which have been found in your drinking water.

## Inorganic Contaminants

Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	MCLG	Unit of Measure	Source of Contaminant
2004	Barium	0.126	0.126	0.126	2	2	ppm	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
2003	Fluoride	0.25	0	0	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2005	Nitrate	12.95	17.1	22.8	10	10	ppm	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
2004	Selenium	3.5	3.5	3.5	50	50	ppb	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
2001-2004	Gross beta emitters	5.5	5.0	6.0	50	0	pCi/L	Decay of natural and man-made deposits.
2001-2004	Gross alpha	5.5	4.2	6.8	15	0	pCi/L	Erosion of natural deposits.

## Organic Contaminants - TESTING WAIVED, NOT REPORTED, OR NONE DETECTED

### Maximum Residual Disinfectant Level

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Disinfectant
2005	Chlorine Residual, Free	0.9	0.3	1.3	4	4	ppm	Disinfectant used to control microbes.

### Disinfection Byproducts

Year	Contaminant	Average Level	Minimum Level	Maximum Level	MCL	Unit of Measure	Source of Contaminant
2005	Total Haloacetic Acids	2.9	1.7	4.1	60	ppb	Byproduct of drinking water disinfection.
2005	Total Trihalomethanes	14.3	5.5	23	80	ppb	Byproduct of drinking water disinfection.

### Unregulated Contaminants

Year or Range	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2002	Bromoform	3.58	0.6	7.9	ppb	Byproduct of drinking water disinfection.
2002	Bromodichloromethane	0.6	0	1.2	ppb	Byproduct of drinking water disinfection.
2002	Dibromochloromethane	1.55	0.5	4	ppb	Byproduct of drinking water disinfection.

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### **Lead and Copper**

<b>Year</b>	<b>Constituent</b>	<b>The 90<sup>th</sup> Percentile</b>	<b>Number of Sites Exceeding Action Level</b>	<b>Action Level</b>	<b>Unit of Measure</b>	<b>Source of Constituent</b>
1999	Copper	0.065	0	1.3	ppm	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
1999	Lead	2.5000	0	15	ppb	Corrosion of household plumbing systems; Erosion of natural deposits.

### **Turbidity - NOT REQUIRED**

**Total Coliform** - REPORTED MONTHLY TESTS FOUND NO COLIFORM BACTERIA

**Fecal Coliform** - REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA

### **VIOLATIONS**

<b>Violation</b>	<b>Health Effects</b>	<b>Duration</b>	<b>Explanation</b>	<b>Steps to Correct</b>
<b>MCL VIOLATION-NITRATE</b>	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill, and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.	1/1/2005 to 3/31/2005	Nitrate levels were recorded at 17.10 ppm, exceeding the MCL.	Alternative water sources and nitrate removal treatment techniques are currently under study by the Authority. Bottled water is provided to qualified persons.
<b>MCL VIOLATION-NITRATE</b>	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill, and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.	4/1/2005 to 6/30/2005	Nitrate levels were recorded at 18.50 ppm, exceeding the MCL.	Alternative water sources and nitrate removal treatment techniques are currently under study by the Authority. Bottled water is provided to qualified persons.
<b>MCL VIOLATION-NITRATE</b>	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill, and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.	7/1/2005 to 9/30/2005	Nitrate levels were recorded at 21.00 ppm, exceeding the MCL.	Alternative water sources and nitrate removal treatment techniques are currently under study by the Authority. Bottled water is provided to qualified persons.
<b>MCL VIOLATION-NITRATE</b>	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill, and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.	10/1/2005 to 12/31/2005	Nitrate levels were recorded at 22.80 ppm, exceeding the MCL.	Alternative water sources and nitrate removal treatment techniques are currently under study by the Authority. Bottled water is provided to qualified persons.